Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

R88Yo
Reserve

YOU'LL WANT AN *Electrified* FARM

"IF I had to give up my electricity I'd quit farming." That's what many farmers say who have learned to put low-cost kilowatts to work.

Electricity is becoming an important key to successful farming.

Electricity saves the farmer's time. Electricity saves the farmer's labor. It increases farm production and farm income. No matter in what type of agriculture a farmer works, records indicate he will find it profitable to put kilowatts into overalls.

You'll want electricity both on your postwar farm and in your postwar farm home. Time and labor saved with electric tools will mean more money to buy electrical appliances — comforts that make living easier, better.

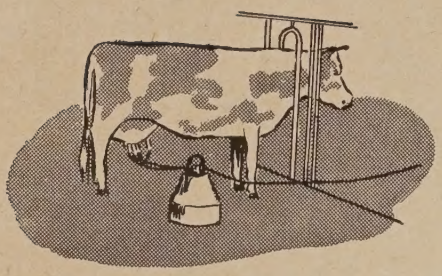
For secure, good farm living, plan for full use of low-cost electric power.

ELECTRICITY can be the backbone of many farm operations, and a helpful handy man for every type of farm. Whether you operate a dairy, poultry farm, truck farm, cattle ranch, fruit orchard, or engage in general farming, you'll find it pays to put power to work.

You can afford to farm electrically because electric tools offer the same advantages enjoyed by the industrial worker in a modern factory. They make possible time- and labor-saving techniques. They step up production, and lower production costs. And they improve quality.

JUN 1 1945

Kilowatts in Overalls



Here are some ways power can help your farming:

Poultry. Electric poultry equipment—safe and efficient brooders, water warming, fans for ventilation, night lights, egg candlers, cleaners and coolers, — costs little to purchase and operate.

Preservation. Kitchen refrigerator, quick-freeze chests, and walk-in coolers greatly reduce perishable food spoilage and improve the quality of products, thus increasing farm income.

Livestock. Pig brooders cut pig loss 50%; stock tank heaters keep fresh water available in the coldest weather; barn hay driers enable hay to be made and the quality saved despite rain; feed grinders and mixers cut feed costs as much as 40%.

Dairy. In addition to water for milk house and barn, electric milkers slash your milking time to a third, permit you to keep larger herds with less labor. It's cheaper to operate an electric milk cooler than to buy ice, and electric cooling keeps bacteria count low, while milk receipts rise.

Water Supply. One of the hardest farm tasks is pumping and hauling water. An electric pump will deliver 500 gallons of water to your home, your dairy house, your poultry or your pig houses — wherever you want it — for about five cents. Texas A. and M. College tests show that automatic drinking cups which permit cows to consume all the water they want step up milk production by 8 to 15%.

Gardens. They can be made to yield more and better quality produce than was hitherto possible, because they are assured plenty of water in dry weather. All parts of the Nation report success from field irrigation made possible by motor-driven pumps. Soil heating cable enables earlier growth of plants, and off-season production.

Farm Shop. Breakdowns to farm machinery in emergencies no longer threaten disaster. Electric farm workshops enable farmers to make quick repairs.

Lights. Electricity provides good lighting for all farm tasks, as well as brooder lamps for young animals, and night lights and ultra-violet for poultry.

Motor Power

A 5 to 7½ horsepower electric motor, single phase, connected to specially-built small equipment will do most ing from 20 to 40 belt horsepower. crop-processing tasks formerly requir- The electric motor will do the job less quickly, but requires less attention, and frees labor for other income producing tasks. It eliminates the need for silo filling rings and similar cooperative labor exchange methods.

One electric motor, made portable by placing on a home-built cart, can chop, dry and hoist hay, elevate corn and grain, bale hay, shell corn, grind feed, cut ensilage and do many other tasks. No large crews and no large investments in heavy machinery are required.

Specially - built small equipment

Typical Electrical Farm Equipment and Power It Uses

EQUIPMENT	KWH CONSUMPTION
Barn Ventilator	2½ per cow per month (variable)
Bottle Washer	½ per 1,000 bottles
Brooder	½ to 3 per chick raised
Churn	1½ per 100 lbs. of butter
Clipper (for horse or cow)	1/10 per hour
Concrete Mixer	½ per cubic yd. of concrete
Corn Husker-Shredder	30 per 100 bu. of corn husked
Cream Separator	½ per 1,000 lbs. of milk
Dairy Water Heater	1 per 5 gallons of hot water (145°F)
Ensilage Cutter	1 per ton
Electric Fence	7 per month
Fly Screen or Trap	5 per month
Grain Elevator	4 per 1,000 bu.
Grain Grinder	½ per 100 bu.
Grain, Seed Cleaner and Grader	1 per 100 bu.
Green Feed Cutter and Root Shredder	2 per ton
Hay Baler	2½ per ton
Hay Hoist	⅓ per ton
Hotbed	1 per sq. yd. per day

EQUIPMENT	KWH CONSUMPTION
Incubator	1 per 25 eggs set
Irrigation (surface)	3 to raise an acre-foot of water 1 foot
Milking Machine (portable)	1½ per cow per month
Milking Machine (pipe line)	2½ per cow per month
Milk Cooler	30 per 10 gals. milk daily, per month
Paint Sprayer	1½ per 1,000 sq. feet
Poultry House Lighting	6 per 100 birds per mo.
Poultry Water Warmer	1 per day
Sheep Shearer	2 to shear 100 sheep
Straw Cutter	2 per ton
Threshing Machine	1 per 8 bu. of grain
Tool Grinder	½ per hour of use
Ultraviolet Lights for Poultry	7 per 100 hens per mo.
Utility Motor, Small ¼ hp	½ per hour of use
Utility Motor, 3 and 5 hp	1 per horsepower per hour of use
Water Pump (deep well)	1½ per 1,000 gallons
Water Pump (shallow well)	1 per 1,000 gallons
Wood Saw	2 per cord of wood

535887

adapted for motor use is now available or is being developed. This equipment has relatively small capacity per hour but requires little labor when semi-automatic operation is planned and provided.

Electric motors operate almost as efficiently on partial loads as they do on full loads, so can be used economically when only part of their power output is required, in contrast with other types of power which must operate at full load for efficient fuel consumption. A motor has the advantage also, of being able to increase its power output from three to five times its rated capacity to take care of peak loads of a few seconds duration.

Farmers educated to grinding 100 bushels of ear corn per hour, cutting ten tons of silage per hour and similar high speed activities requiring big machines, tremendous power and large amounts of labor will be pleasantly surprised at the adaptability, reduced cost and labor when electric motors are fully utilized for farm power.

Kilowatts in an Apron

JUN 14 '45

ELECTRICITY does more than provide good clear lighting to ease tired eyes, brighten the home, and make it safer. Good lighting is important, but it is only one of the many major services power makes possible in the farm home. Power also eliminates drudgery and cuts short, hours spent on homemaking tasks.

Consider a typical farm kitchen. For about a dollar a month, depending on the size of the family, an electric powered pump makes water available at the turn of a faucet. And electricity provides hot water, too. Kilowatts make cooking a pleasure. An electric range or grill does away with the hot, wood-fired or coal oil stove.

Hot summer days no longer menace food. Modern, efficient electric refrigerators pay their own way by reason of the food they save, and the economical purchases they make possible. Home freezers that permit fresh fruit and vegetables all year 'round need only be plugged in to a convenient wall outlet. Electricity means cold for preservation, as well as heat for cooking.

Washdays are no longer to be dreaded when farm wives have modern electric machines that quickly and easily clean work-soiled clothes. Electric ironers reduce the number of hours spent in lifting and pushing a heavy sad iron.

The same electric pump and electric water heater that serves the kitchen makes modern, indoor, sanitary plumbing available. Bathtubs and showers become possible in farm homes. Automatic coal stokers or oil furnaces become possible with electricity.

Yes, electricity transforms the farm home. Bright lights and radio are only the beginning of the many conveniences it makes possible.

Typical Electrical Home Equipment and Power It Uses

EQUIPMENT	KWH CONSUMPTION
Clock	2 per month
Coffee Percolator	5 per month
Dish Washer	2½ per month
Fan (household)	2 per month
Fan (kitchen)	8 per month
Freezer	125 per month (per 20 cu.-ft. box)
Heater (glowing or radiant)	1 per hour of use
Heating Pad	½ per hour of use
House Heating (oil burner)	25 per month
Iron (hand)	5 per month
Ironing Machine	10 per month
Lighting	20 per month
Radio	8 per month
Range	100 per month
Refrigerator	25 to 30 per month (for 8 cu.-ft. box)
Roaster	40 per month
Sewing Machine	½ per month
Toaster	3 per month
Vacuum Cleaner	2 per month
Waffle Iron	2 per month
Washing Machine	3 per month
Water Heater	240 per month

When Electricity Comes to Your Neighborhood—

HIGHLINES that bring electricity to your farm also bring it to the schools, churches, meeting halls, stores and locker plants in your neighborhood. They make possible development of local rural industries so that more of the products you raise can be processed locally.

Local industrial development means jobs for members of your family who do not intend to or are not able to farm, or who farm only part time, seeking work off the farm in slack seasons. Such development also often means lower prices for the manufactured goods you buy and higher prices for the raw materials you sell, because transportation costs and sometimes production costs can be reduced, or because you or someone in your neighborhood can add value to the product which your farm has produced.

Electricity is important in modern education. It provides students with better lights so that young eyes are not strained. It makes possible modern, sanitary plumbing in school houses. And it helps provide hot lunches for growing children — lunches that will help make them better pupils and better citizens. Teachers depend on electric power for sewing, cooking and shop classes. They use motion pictures, slide films and radio in their classroom work. No wonder rural teachers eagerly seek electric power for their school, and that teachers are attracted to those schools which are equipped with the modern conveniences that electric power can bring.

Community canning centers and repair shops are easy to organize when a neighborhood enjoys the advantages of

electricity. Working together, folks are able to employ to the fullest, high speed, effective modern tools for this ideal type of community enterprise.

Community locker plants, too, become possible with the coming of electricity. There are many indications that home freezers will come into common use — but locker plant facilities will be needed for butchering, preparing, blanching and cooling foods which may later be stored in home boxes. Living on the farm becomes richer, fuller and healthier with an all-year supply of fruits, vegetables and meats as your family needs them.

Power resources spell new life to your rural community.

Tips on Farmstead Wiring

PLAN your farmstead wiring with foresight. Lay it out in consultation either with your REA adviser, your county agent, or a reputable and experienced contractor.

Remember, electricity is a farm money maker and sooner or later you will want to use it more extensively. You will be adding new equipment that places added loads on your wiring system. You will be using more appliances in your home.

It pays to allow for these expected increases when you install your wiring. Use heavy enough wire, have enough outlets and enough circuits to permit you to make full use of electricity.

It is not necessary to do a complete wiring job at the outset. You may wish to extend your electric lines. Therefore, get a wiring job done which will permit you to make future extensions at the lowest price and with the least amount of labor.

Don't risk life and property by taking chances on your wiring job. Before using your wiring have it inspected and approved for safety. It is wise, whenever possible, to have your equipment inspected, too, as you install it.

How YOU CAN GET ELECTRICITY

IF the farm on which you are now living, or which you contemplate acquiring, is not now served by electricity, you may be able to get power either as an individual, or in company with your neighbors.

Material and labor shortages make necessary certain restrictions on the building of power line extensions. Find out from your nearest REA system office, or from your county Agricultural Conservation Committee office, whether your farm can qualify for an electric extension of given length under present restrictions, or whether it will do so in conjunction with neighboring farms, so an extension can be built to the entire group.

When restrictions are lifted, your nearest REA system will make every effort to bring power to your farm and to those of your neighbors, on an area-coverage, non-profit basis. If there are no REA lines in your immediate vicinity, you may be able to work with your neighbors to form a new REA system. If no other sources of information are available, address your inquiry to REA, St. Louis 2, Mo.

Here is why it is usually practical and advisable for unserved farms to first seek power through REA channels, and why it is important for those farms to seek such power regardless of present restrictions:

REA's policy of area coverage is to bring service to farms, schools, churches and other rural establishments not only in densely-settled areas, but to sparsely-settled territory down back roads and on the hillsides. The opposite of this policy — selective service — is to bring power only to those establishments where it is profitable to do so.

The REA method is made possible by the Congressional-approved policy of financing REA systems. Farm people borrow funds from REA at 2% interest and repay it over an extended period, up to 35 years. The people themselves operate the power system and when the loan is repaid they own the system free and clear.

An REA-financed system can afford to reach the more distant farms because it has the revenue from all farms in a given area, rather than from only certain farms, and because it is operated for low-cost service, not for profit.

IN 1935, when the REA was created, only about 11% of America's farms had central station electric power. On most of the farms power was used only as a source of light.

As of January 1, 1945, about 43% of the Nation's farms were electrified. REA has allotted about $510,000,000 to 820 borrowers serving about 1,200,000 consumers to build lines, to build power plants where necessary, and to lend money to consumers for purchases of equipment and appliances. A large percentage of these farmers are learning that power is more valuable as a tool than as a mere source of comfort.

REA believes that with the new, lower rate of interest at which it is permitted by Congress to extend loans, and with the longer length of amortization which it may apply to these loans, about 3,655,000 of a total of 5,392,000 farms and other rural establishments can be served with power within five years after materials and manpower become freely available. A three-year program has been proposed for REA, under which slightly more than 1,250,000 farms and rural homes could be served.

RURAL ELECTRIFICATION ADMINISTRATION • U. S. DEPARTMENT OF AGRICULTURE